WHAT IS CLAIMED IS:

1. A system, comprising:

   a processor; and

   a memory comprising program instructions, wherein the program instructions are executable by the processor to implement a policy evaluation mechanism configured to evaluate policies to provide automated computer system administration in an information technology (IT) environment, wherein, to evaluate policies, the policy evaluation mechanism is configured to:

   access a policy and information relevant to an evaluation of the policy; and

   evaluate the policy according to the information using two or more inference techniques to generate an answer and a confidence level for the policy evaluation.

2. The system as recited in claim 1, wherein the inference techniques include one or more of probability calculus, fuzzy logic and evidential logic.

3. The system as recited in claim 1, wherein the policy evaluation mechanism is further configured to provide the answer and the confidence level to a user of the system.

4. The system as recited in claim 1, wherein the policy evaluation mechanism is further configured to initiate a process automatically in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

5. The system as recited in claim 1, wherein the policy evaluation mechanism is configured to evaluate policies to provide automated administration for one or more of a storage management mechanism and an application management mechanism.

6. The system as recited in claim 1, wherein the inference techniques are implemented according to an uncertainty logic programming language.

7.   The system as recited in claim 6, wherein the uncertainty logic programming language is one of Fuzzy Relational Inference Language (FRIL) and FRIL++.

8.   A system, comprising:

    means for evaluating policies using two or more inference techniques to generate an answer and a confidence level for the policy evaluations; and

    means for providing automated computer system administration in an information technology (IT) environment according to the policy evaluations.

9.   A method, comprising:

    evaluating policies to provide automated computer system administration in an information technology (IT) environment, wherein said evaluating policies comprises:

        accessing a policy and information relevant to an evaluation of the policy; and

        evaluating the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer and a confidence level for the policy evaluation.

10.   The method as recited in claim 9, wherein the policy evaluation mechanism is further configured to provide the answer and the confidence level to a user of the system.

11.   The method as recited in claim 9, further comprising automatically initiating a process in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

12.   The method as recited in claim 9, wherein said automated computer system administration in the IT environment comprises automated administration of one or more of a storage management mechanism and an application management mechanism.

13.   The method as recited in claim 9, wherein the inference techniques are implemented according to one of Fuzzy Relational Inference Language (FRIL) and FRIL++.

14.   A computer-accessible medium comprising program instructions, wherein the program instructions are configured to implement:

       evaluating policies to provide automated computer system administration in an information technology (IT) environment, wherein said evaluating policies comprises:

       accessing a policy and information relevant to an evaluation of the policy;

       evaluating the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer and a confidence level for the policy evaluation; and

       automatically initiating a process in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

15.   The computer-accessible medium as recited in claim 14, wherein said automated computer system administration in the IT environment comprises automated administration of one or more of a storage management mechanism and an application management mechanism.

16.   A system, comprising:

       a processor; and

a memory comprising program instructions, wherein the program instructions are

executable by the processor to implement a self-tuning policy evaluation

mechanism configured to evaluate policies to provide automated computer

system administration in an information technology (IT) environment,

wherein the self-tuning policy evaluation mechanism is configured to:

evaluate a policy according to information relevant to an evaluation of the

policy using two or more inference techniques to generate results

including an answer and a confidence level for the policy

evaluation;

store the results of the policy evaluation in a database of historical

information about the policy; and

access the historical information stored in the database in subsequent

evaluations of the policy to generate more accurate results.

17. The system as recited in claim 16, wherein the inference techniques includes one or more of probability calculus, fuzzy logic and evidential logic.

18. The system as recited in claim 16, wherein the self-tuning policy evaluation mechanism is further configured to automatically initiate a process in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

19. The system as recited in claim 16, wherein the self-tuning policy evaluation mechanism is configured to evaluate policies to provide automated administration for one or more of a storage management mechanism and an application management mechanism.

20. The system as recited in claim 16, wherein the inference techniques are implemented according to one of Fuzzy Relational Inference Language (FRIL) and FRIL++.

21.	A system for providing automated computer system administration in an information technology (IT) environment according to policy evaluations, comprising:

	means for evaluating policies using two or more inference techniques to generate results including an answer and a confidence level for the policy evaluations;

	means for storing the results of the policy evaluations as historical information about the policy evaluations; and

	means for applying the historical information in subsequent evaluations of the policy to generate more accurate results.

22.	A method, comprising:

	evaluating policies to provide automated computer system administration in an information technology (IT) environment, wherein said evaluating policies comprises:

		evaluating a policy according to information relevant to an evaluation of the policy using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate results including an answer and a confidence level for the policy evaluation;

		storing the results of the policy evaluation in a database of historical information about the policy; and

		accessing the historical information stored in the database in subsequent evaluations of the policy to generate more accurate results.

23.	The method as recited in claim 22, further comprising automatically initiating a process in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

24.   The method as recited in claim 22, wherein said automated computer system administration in the IT environment comprises automated administration of one or more of a storage management mechanism and an application management mechanism.

5   25.   The method as recited in claim 22, wherein the inference techniques are implemented according to one of Fuzzy Relational Inference Language (FRIL) and FRIL++.

26.   A computer-accessible medium comprising program instructions, wherein the
10   program instructions are configured to implement:

        evaluating policies to provide automated computer system administration in an information technology (IT) environment, wherein said evaluating policies comprises:

        evaluating a policy according to information relevant to an evaluation of
15   the policy using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate results including an answer and a confidence level for the policy evaluation;

        storing the results of the policy evaluation in a database of historical
20   information about the policy; and

        accessing the historical information stored in the database in subsequent evaluations of the policy to generate more accurate results.

27.   The method as recited in claim 26, further comprising automatically initiating a
25   process in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

28.   The method as recited in claim 26, wherein said automated computer system
30   administration in the IT environment comprises automated administration of one or more of a storage management mechanism and an application management mechanism.

29.   A system for automated administration of an information technology (IT) environment, comprising:

a plurality of decision engines comprising:

one or more local decision engines each configured to provide automated administration for one component in the IT environment according to one or more local policies for the component; and

a central decision engine configured to provide automated administration of the IT environment according to one or more high-level policies for the IT environment;

wherein each of the decision engines is configured to:

evaluate a policy associated with the decision engine according to information relevant to an evaluation of the policies using two or more inference techniques including probability calculus, fuzzy logic and evidential logic to generate results including an answer and a confidence level for the policy evaluation; and

automatically initiate a process in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold.

30.   The system as recited in claim 29, wherein the components include one or more of a storage management mechanism and an application management mechanism.

31.   The system as recited in claim 29, wherein the local decision engines are further configured to provide the results of local policy evaluations to the central decision engine for use in evaluations of the high-level policies for the IT environment.

32.   The system as recited in claim 29, wherein, to provide automated administration of the IT environment according to one or more high-level policies for the IT environment, the central decision engine is configured to:

evaluate the high-level policies using two or more inference techniques to

generate results including answers and associated confidence levels for the

high-level policy evaluations; and

delegate local policies to the one or more local decision engines for evaluation.